



## Fatal Collapse of Bulk Materials Storage Wall

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**Attention:** Companies who make or use interlocking concrete blocks for bulk materials storage

Walls built from interlocking concrete blocks, often called “**ecology blocks**,” can become unstable and pose a deadly threat to workers, customers, and passersby.

DOSH recently investigated two workplaces where sections of outdoor walls suddenly collapsed. **One incident resulted in a worker being crushed and killed by falling blocks**, while the other non-injury incident left a powerful “near miss” warning.

Interlocking blocks made from surplus concrete are dry stacked to create outdoor storage bins for sand, gravel, soil, animal feed, and other bulk materials used in landscaping, agriculture, construction, and manufacturing.



These walls can tumble down. Too much bulk material exerts enough sideways force to cause concrete blocks or whole sections of walls to suddenly collapse.

**Although blocks are designed to interlock, it's important to assure the stability of the entire wall system.** Whole sections of walls, including corners, can gradually or suddenly destabilize and collapse due to forces exerted by the static or changing weight of bulk materials during storage, filling, and emptying of bins. These forces can also dislodge and push individual blocks enough to tip and fall. Inadequate footings may cause entire walls or sections to lean and collapse.

If you use interlocking concrete blocks be sure to follow the manufacturer's instructions and specifications for safe setup and ongoing stability. In the absence of such information, rely on a [Registered Professional Engineer \(RPE\)](#) to determine what's safe for your particular workplace. In addition, make sure your **required** [Accident Prevention Program \(APP\)](#) and employee safety training address:

- Safe lifting and transporting of blocks to prevent equipment from tipping over and other hazards
- Ways to keep employees out of hazard zones
- How to recognize, report, and resolve stability problems

Safety training materials, videos, publications, posters, and other resources are available **at no charge** [www.lni.wa.gov/safety-health/](http://www.lni.wa.gov/safety-health/).

Please share this bulletin with others in your industry and safety networks.

If you have questions or comments about this eBulletin, please contact your [local L&I safety consultant](#).

*This bulletin was developed by L&I's Division of Occupational Safety and Health (DOSH) to alert employers, labor groups, and employees to potential hazards associated with work activities. **This is not a rule and creates no new legal obligations.** The information provided includes suggested guidance on how to avoid workplace hazards and describes relevant mandatory safety and health rules. DOSH recommends you also check the related rules for additional requirements.*

#2HB2012